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ABSTRACT

A questionnaire designed to measure respondents' weekly television viewing habits and their estimates of crime victimization was administered to 142 undergraduate students. Two measures of exposure to 94 prime-time television programs were compared on a program-by-program basis: (1) violent acts per hour in programs viewed weekly, and (2) amount of time spent viewing regularly. Likewise, two measures of crime estimates were compared: respondents' beliefs about the chances of crime victimization in the general population, and their beliefs about personal victimization. The results showed significant correlations between demographic estimates of crime victimization and both viewing measures when data were combined. Respondents who watched programs with moderate violence (compared to low or excessive violence) tended to report the highest estimations of personal crime victimization. One item dealing with estimates of rape appeared to be related to both general and personal dimensions of crime victimization. (A three-page list of references and tables of statistical and demographic data are included.) (HOD)

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Correlates of Television Viewings: Perceptions of Crime

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and Simone Rodin

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ABSTRACT

Correlates of Television Viewings: Perceptions of Crime

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This survey explored two issues associated with the cultivation hypothesis: appropriate viewing measures, and dimensions of crime-victimization estimates. Two measures of exposure to 94 prime-time television programs were compared on a program-by-program basis: (1) violent acts per hour in programs viewed regularly (i.e., weekly), and (2) amount of time spent viewing regularly. Likewise, two measures of crime estimates were compared: (1) respondents' beliefs about the chances of crime victimization in the general population, and (2) their beliefs about personal victimization.

Results based on 142 undergraduate respondents include a stable pattern of positive correlations between both viewing measures and respondents' estimates of crime victimization in the general population. These correlations remain significant with the application of single and multiple control variables. On the other hand, none of the correlations between either of the viewing measures and items tapping respondents' estimates of personal victimization was significant. This pattern of correlations was also stable, with no correlation reaching significance when single or multiple controls were applied. But subgroup analysis revealed that respondents who watch programs of moderate violence (compared to low or excessive violence) tend to report the highest estimations of personal crime victimization. Another finding emerged that was unexpected. One item dealing with estimates of rape appeared to be related to both general and personal dimensions of crime victimization.

The results are discussed in substantive and methodological terms, and in terms of the usefulness of conceptual replications in the field of mass communication. Suggestions for future research include survey charting of television's overall (i.e., not limited to prime-time) relationship to estimates of crime victimization, and experimental explorations of the cognitive links between television exposure and personal fear of victimization.

Abstract

The cultivation literature is reviewed with emphasis placed on two unresolved issues: appropriate viewing measures (violent content vs. amount of television viewed regularly), and dimensions of correlated estimations of crime victimization (demographic vs. value-system). A survey was conducted to measure the number of prime-time programs respondents viewed regularly, and their demographic and value-system estimates of crime victimization. Significant correlations were obtained between demographic estimates of crime victimization and both viewing measures when data were combined. Value-system estimates of crime victimization were significantly correlated with high-violence subgroups only. Implications for further research are discussed.

Correlates of Television Viewing: Perceptions of Crime

An issue central to the study of mass communication and society is the role the media play in shaping our perceptions of the "real world." For example, Lippmann (1922) wrote that "whatever we believe to be a true picture, we treat as if it were the environment itself" (p. 4). Innis (e.g., 1950), and later McLuhan (1969), outlined relationships among mass communication technology, sensory perception, and social control. Cohen (1963) wrote that "if we do not see a story in the newspapers (or catch it on radio or television), it effectively has not happened so far as we are concerned" (p. 13), an idea further articulated by McCombs and Shaw (1972). And Gerbner (e.g., Gerbner & Gross, 1976) asserted that "television is the central cultural arm of American society...[whose] function is, in a word, enculturation" (p. 175).

Regardless of whether these observations were based on examinations of mass media content (news, televised drama) or on the content-free role of the media themselves (mass communication technology), they reflect a belief in consequences arising from exposure to mass communication. These "effects" have been described as usually contributory, though occasionally deterministic, and almost always causal. And though attributed to all media in some degree, they have been associated mostly with television and newspapers.

Implicit in these ideas is a socially constructed "real world" (e.g., Berger & Luckmann, 1967). Individuals' perceptions of this world are derived partly from actual observations, and partly from internalized, learned expectations based on past experiences such as media use. Adoni and Mane (1984) identify two approaches to the study of mass communication and socially constructed reality: social construction of reality as an important aspect of the relationship between culture and society (the European, critical, sociological orientation), and social construction of reality as one type of media effect (the Western, positivist, psychological orientation).

But at times these distinctions are obfuscated in studies of social reality effects of mass communication. One example of such paradigmatic "fuzziness" is George Gerbner's Cultural Indicators project at the University of Pennsylvania. For example, Gerbner contends that heavy television viewing cultivates in individuals an exaggerated belief in a mean and scary world. This is said to result from (a) television images that are repetitive, uniform, stereotypic, and incongruent with the observable, measurable world; and (b) the nonselective, ritual viewing habits of the television audience (Gerbner, Gross, Signorielli, Morgan, & Jackson-Beeck, 1979).

Gerbner's early writings on cultivation imply a macro-level approach (cf. Gerbner, 1972, p. 154). And though his rhetoric continues to focus on the ritualistic function of television, his evidence for cultivation is based on data gathered from individuals and interpreted in terms of audience effects (Newcomb, 1978). These effects are attributed not only to the amount of media consumed, but also to specific types of media content, notably violence.

Of course, Gerbner has studied many of the relationships among media and society. But the present discussion is limited to one: the relationship between individuals' regular television viewing and its associated violence, and their estimations of crime victimization. And though we approach this facet of cultivation from the effects tradition, we recognize Gerbner's other ideas about media (e.g., the relationships between media content and concentrations of power in society). We believe all have obvious merit.

Review of Literature

Hawkins and Pingree's (1982) excellent review of research on television and constructions of social reality indicates (a) some support for the notion that heavy television use is associated with survey respondents' overestimations of some real-world occurrences (demographic beliefs); and (b) somewhat less support for the contention that heavy television use is associated with interpersonal

mistrust, alienation, or generalized wariness (value-system beliefs). This conclusion is based on findings from 24 different samples.

Gerbner and his associates have amassed much support for the claim that heavy television viewing is related to fear of victimization (e.g., Gerbner et al., 1979), although other researchers have questioned the pervasiveness of the effect (Doob & Macdonald, 1979) and challenged Gerbner's methodology. Hirsch (1980, 1981), in particular, has raised a number of valid criticisms, including Gerbner's definition of heavy and light viewers, and his failure to distinguish between the amount of television viewed and the amount of violence viewed as measures of television use. Given Gerbner's contention that the symbolic portrayal of victims and victimizers contributes heavily to the cultivation effect, it would seem that the amount of violence viewed is the more appropriate measure. This conclusion does not seem inconsistent with Gerbner's perspective, considering that he has content analysed violence on prime-time network television for almost 20 years.

Moreover, Hawkins and Pingree (1981) have argued that the assumptions of uniform content and ritual viewing are not essential to cultivation; rather, they contend that the most fruitful approach to cultivation might involve examining the effects of specific types of content (such as violence or cartoons) on relevant social perceptions. It would seem, therefore, that cultivation effects could emerge as a result of extended exposure to any type of content (e.g., violence) in any mass medium. This idea was applied in a recent large-scale survey. In a Florida study, Roberts (1985) found correlations between measures of time spent viewing television and regular viewing of programs containing a great deal of violence.

Goals and Hypotheses

We believe the question of the appropriate measures of television viewing in cultivation analyses merits further testing. To our knowledge, the

literature does not contain a comparison of the relative merits of different measures on a program-by-program basis for a single sample. Hence, this analysis is somewhat exploratory. But based on the literature and the violence-cultivation link, we expected measures of violence regularly viewed (compared to measures of regular television viewing) to be related more strongly to estimations of crime victimization. This comparison was the primary goal of the study.

A second goal was to test in a survey setting a crime-victimization scale that had been devised for use in an experimental cultivation analysis (Ogles and Hoffner, in press). In this controlled laboratory study, exposure to five commercially released R-rated films during a two-week period produced higher estimations of personal (value-system) crime victimization, compared to estimations of crime victimization in general (demographic estimates).¹ These results run counter to the pattern of findings reviewed by Hawkins and Pingree.

Ogles and Hoffner interpreted their findings as laboratory evidence that exposure to violent media content can cultivate value-system fear of victimization. We think the study is timely in light of the increasing penetration of video cassette recorders and movie rental outlets. And, it is one of few experimental investigations of the cultivation hypothesis (cf. Zillmann & Bryant, 1982; Bryant, Carveth, & Brown, 1981).

But why did the participants in this experiment apparently internalize the media violence to which they were exposed? Was this particular crime-victimization scale, constructed by paraphrasing items taken from the published reports of Gerbner and his associates, in some way more sensitive to value-system cultivation? Or, was the unexpected finding due to the graphic nature of the film violence, or perhaps to the experimental setting?

Although these questions cannot be answered without further experimental research, the present study afforded the opportunity to use this crime-

victimization scale in the more-typical setting of survey research, thereby exploring the instrument's performance in two different research environments. Because of the discrepancy between the literature and the recent experimental and survey findings, no predictions were made about expected outcomes in the survey setting.

To summarize, the present study was designed to investigate (a) the relationship between the violence in programs viewed regularly vs. the amount of regular viewing, and (b) demographic vs. value-system responses to crime-victimization questionnaire items. One specific prediction was made: More crime-victimization items were expected to be positively correlated with televised violence than with the mere amount of television viewed. And though the literature points to stronger correlations for demographic items compared to value-system items, recent experimental and survey evidence of value-system cultivation made prediction difficult.

Method

Theories of media-influenced constructions of social reality require a minimum of three variables for meaningful testing. The first variable is derived from content analysis of media (television). The second variable is based on media (television) use. The third variable is derived from self-reported attitudes about perceptions of subjective social reality. And some studies, including those by Gerbner and his associates, use a fourth variable based on archival data reflecting aggregate, objective social reality. In the present study, the first three variables were analyzed.

Materials

Instrument. A five-page questionnaire was designed to measure respondents' regular (e.g., weekly) television viewing habits and their estimates of crime victimization. Demographic information was also collected, some of which was designed for statistical control.

Viewing measures. Two measures of television viewing were derived from the National Coalition on Television Violence (NCTV) list of prime-time network programs that had been content analysed for violence. The list was compiled from the Coalition's NCTV News (1985, July-August), and a press release dated November 1, 1985 (National Coalition on Television Violence, 1985, November). These content analyses report violent acts per hour for prime-time network programming. The two most recent reports were combined to include all prime-time network television programming in 1985. The first report reflected the Coalition's prime-time monitoring from October 4, 1984 through April 5, 1985. The press release reported preliminary results of the group's monitoring during the fall 1985 television season. It should be noted that the preliminary fall 1985 data were based, in some cases, on as few as two episodes per show.² The first viewing measure reflected the average number of violent acts per hour for each program on the NCTV list respondents indicated they watched regularly.

This study is not the first to use the NCTV content analyses in cultivation analysis. Roberts (1985) used the Coalition's list of the most violent programs to construct a measure of violent viewing based on the number of programs on the NCTV list respondents indicated viewing on a regular basis. He also recognized the importance of measuring both time spent viewing and the viewing of programs containing a great deal of violence. But Roberts' analysis appears to have been limited to the 11 most-violent programs. Our analysis measured the amount of violence contained in 94 prime-time programs. The average number of violent acts per hour in these programs ranged from 0 to 55.

Although we recognize that the NCTV data can be challenged, the NCTV's monitoring results are basically congruent with Gerbner's content findings. For example, both the NCTV and Gerbner report the highest amounts of violence during children's programming (cartoons), with somewhat less violence during prime-time. Furthermore, the use of the NCTV's content data in cultivation analyses

such as the present one and the previously mentioned study by Roberts, provides needed conceptual replications of previous cultivation findings. This is especially important since the majority of studies in this area have been conducted by Gerbner's Cultural Indicators group, using Gerbner's content data.

The second viewing measure was simply the sum of the total running times (in minutes) of programs respondents indicated they watched regularly.

Victimization measure. An eight-item scale measured respondents' estimates of crime victimization. Five items tapped estimates of victimization in general (demographic beliefs), and three items tapped estimates of personal violence (value-system beliefs). Interspersed with the crime items were six items designed to measure respondents' level of influence in group decision-making, and how active or passive respondents reported themselves to be in various situations. The eight crime-victimization items with mean item scores, items-to-total correlations, and reliability data are listed in Table 1.

Insert Table 1 about here

Procedure

A program checklist was constructed containing 94 prime-time network programs content analyzed by the NCTV. The shows were listed in a single order, with programs containing high numbers of violent acts per hour alternated with programs containing low numbers of violent acts per hour. After exhausting the programs with high and low amounts of violence, the remaining shows--those with moderate numbers of violent acts per hour--were placed at the end of the list. Written instructions asked respondents to check off any of the 94 programs they currently watched regularly or had watched regularly prior to the new network television season (which had just begun when the survey was conducted). To enhance recognition, the network on which each program was telecast (ABC, CBS, NBC) was also included. The program checklist provided two continuous measures

of viewing: violent acts per hour contained in programs checked, and program running times.

The questionnaires were arranged so that half of the respondents completed the crime victimization items before completing the television viewing section ($n = 70$). The order was reversed for the other half ($n = 72$). The demographic items appeared on the first page of all questionnaires.

To test for order effects resulting from the questionnaire versions, t tests were conducted on the means of the viewing measures and chi-square tests were conducted on the proportions of male and female respondents. No test approached significance.

Respondents

The questionnaires were administered to undergraduates at the University of Wisconsin-Whitewater in early November, 1985. Respondents were recruited with no advance warning in two sections of Introduction to Mass Communication and one section of Radio Announcing. The questionnaires were administered at the beginning of the class periods. Attached to each questionnaire was a stamped slip of paper redeemable for extra credit at the end of the semester. A brief oral introduction included remarks about the mechanics of completing the program checklist and crime-victimization scale, paraphrased from the written instructions. In addition, the students were told that their participation was optional and that they could turn in blank questionnaires (though none did so) and still receive extra credit. Respondents' anonymity was assured. No respondent identification of any kind was recorded.

The respondents filled out the questionnaires immediately after any questions about the procedure were answered. There was no opportunity for respondents to interact with each other. Although the questionnaires were completed in group settings, responses were made independently.

A total of 142 completed questionnaires was obtained. Four questionnaires

were eliminated from analysis because entire sections had not been filled out.

In an attempt to make the task educationally beneficial to the student respondents (i.e., to give the students something more than extra credit in exchange for their time), we offered to return to the classes later in the semester and discuss the study in the larger context of media-influenced constructions of social reality. Neither instructor indicated interest in our offer.

Coding

The questionnaires were coded by the three junior authors, who were enrolled for two semesters in an undergraduate seminar on research experience in media effects. First, violent acts per hour and program running times were tallied and recorded for each respondent. The coders' work was rotated, with each coder checking all of one other coder's tallies. The process was tedious, and this procedure enabled many mistakes to be corrected prior to keypunching. The senior author ultimately compared a printout of the punched data cards with responses on the questionnaires, and corrected any mistakes.

Next, the coders recorded responses to the crime victimization items, which were marked by placing slashes on lines anchored at 0% and 100% and labeled at intervals of 10%. Responses were scored to the nearest whole number (e.g., 47%).

As a check on the reliability with which the three coders estimated the nearest whole numbers on the rating scales, each coder estimated an identical list of 14 scored items. The coefficient of reliability was .82, with seven disagreements of the total 42 items coded for reliability. In each of the disagreements, the estimate was off by one percentage point (e.g., two coders estimated an item at 47%; the third coder estimated that item at 46%). There was a balanced number of over- and underestimations (three and four, respectively). It seems unlikely that such random coding error (in the range of

one percentage point), occurring less than 20% of the time, would have affected the results appreciably.

Results

Three demographic items measured characteristics designed for statistical controls: (a) Sex: Female (56%); (b) Religion: Catholic (49%), Protestant (40%) no religious affiliation (11%); and (c) Hometown Background: Urban (23%), Suburban (33%), Rural (not farm) (37%), and Farm (6%).

The median respondent age was 20, with 93% of the respondents between 19 and 22 years of age. Eight respondents reported ages evenly distributed between 23 and 33 years; one respondent was 41 years old. Ninety-seven percent of the respondents were white. All of the respondents were sophomores (34%), juniors (47%), or seniors (19%). And all but two respondents reported hometowns in the Midwest.

The available-subjects sample, although not representative of a wide viewing population, nevertheless provided some advantages in this study. The respondents were homogeneous with regard to age, education, race, and we assume income (though their family incomes no doubt varied). Jackson-Beeck and Sobal (1980) note that "...when television is treated as a continuous variable (measured in hours), it is strongly associated with sex, race, age, education, and income" (p. 5). Sex was controlled statistically. Hometown background and religion, which may be considered rough locaters of socio-economic status, also were controlled statistically.

Although the respondents were homogeneous in many ways, their television use varied considerably. Violent acts per hour seen regularly ranged from 6 to 320. The mean was 121 violent acts per hour viewed regularly, with a standard deviation of 99. Total hours viewed regularly ranged from 1 to 34. The mean was 11 hours, with a standard deviation of 6.

The crime-victimization items were envisioned originally as a single scale, although various items could be labeled "demographic" or "value system." Even though the number of items was small, they were factor analyzed in hopes of identifying two dimensions that approximated the division of the items into demographic and value-system subscales, based on their face validity. The results of this analysis are presented in Table 2.

Six of the items seem to load on either a demographic or value-system factor. The two rape items, however, are less easily interpretable. The demographic estimate of rape (item 5) loads about equally well on both factors. The value system estimate of rape (item 3) loads on the value-system factor, but not as convincingly as do the other two value-system items.

It is possible that with additional rape items, a third factor might have emerged. Nevertheless, we think the more-general crime victimization items (and those typically used in cultivation analyses) divide meaningfully into the dimensions identified by Hawkins and Pingree.

It should be emphasized that the purpose of this factor analysis was not to reduce a large number of items into scales, but rather to seek confirmatory evidence in support of dividing the items into subscales suggested by previous research.

Insert Table 2 about here

Significant correlations were obtained between the two viewing measures and the five demographic items on the crime victimization scale. None of the value-system correlations was significant. Zero-order correlations between viewing and demographic estimations of crime victimization are listed in Table 3.

Insert Table 3 about here

The three control variables--sex, religion, and hometown background--were applied independently and in combination (as suggested by Hirsch). Addition of controls did not result in any significant zero-order correlation becoming nonsignificant, nor did the controls result in any nonsignificant correlation attaining statistical significance.

The pattern of correlations was stable, especially for the violent-acts-per-hour viewing measure (see Table 4), with all five demographic items remaining significant after controls.

The pattern was also stable for the amount-of-television viewing measure for the four items with significant zero-order correlations (see Table 5). Item 3, though clearly nonsignificant overall (zero-order $r = .08$, $p = .17$), approached significance with the addition of controls, with all probability levels $< .10$.

Insert Tables 4 and 5 about here

Nevertheless, these correlations obscure the true nature of the relationships between viewing and estimates of crime victimization. Subgroups were formed by splitting the sample at the median for each viewing measure. No significant correlation was found between amount of viewing and the crime-victimization items for either the heavy-viewing or light-viewing group. But, with simultaneous controls, the correlations between two of the value-system crime-victimization items and heavy regular viewing of violent acts per hour were significant. Correspondingly, the correlation between the demographic estimate of rape and violent acts per hour viewed regularly was significant for light viewers when controls were applied simultaneously. These results are presented in Table 6.

Insert Table 6 about here

Perhaps the most revealing analysis examined correlations between the crime victimization items and violent acts per hour viewed regularly, divided into categories suggested by the NCTV. Table 7 shows that for low and moderate categories, the correlations either were not significant, or were significant but negative. But for the heavy and excessive categories, several correlations were significant. And in the heavy category, all three value-system items were significantly correlated with violent acts per hour viewed regularly.

 Insert Table 7 about here

Discussion

Media research conducted on university students, especially those enrolled in mass communication classes, is always less than ideal. But available samples such as university classes are useful when the testing of hypotheses or the exploration of relationships is the main concern (and representativeness secondary). We nevertheless recognize the need for replication with representative samples.

But even though replication is a good thing, and even though the field of mass communication has been criticized for not placing enough emphasis on replication, exact replication is not particularly useful. On the other hand, conceptual replication adds to understanding when it expands or articulates previous findings, especially when conducted by independent researchers using a variety of methods.

We believe our program checklist is a conceptually sound and precise method of conducting cultivation analysis that yields continuous measures of prime-time programs viewed regularly. When coupled with a content analysis of televised violence, the program checklist allows the researcher to compare viewing measures on a program-by-program basis. This type of measurement can address issues such as cultivation arising from the viewing of a few, very-violent

programs.

But there appears to be a trade-off between improvement in precision and external validity that makes the use of national survey organization's data attractive. It would be very expensive to conduct the present study using a national probability sample.

Moreover, as the second of three studies in a program of cultivation analyses (with each study using a different measure of exposure to television), this investigation demonstrated that it is unlikely the crime-victimization scale used in these studies was in itself responsible for the unusual results obtained in the previously mentioned experiment.

With this sample, it is difficult to assess the adequacy of the hometown background and religion controls. It is doubtful that the urban/suburban/rural (not farm) and farm distinction was precise enough to detect a contingency in the cultivation phenomenon on the order of that found by Doob and Macdonald (1979) in high- and low-crime Toronto neighborhoods, considering that high- and low-crime areas exist in urban and suburban settings. A better approach might be to stratify samples according to the actual crime level of respondents' (even university students') hometown neighborhoods. Although the additional information would be valuable, the hometown influence might be obscured in students living away from home.

Methodological issues aside, several substantive findings emerged from this analysis. The correlations between violent acts per hour viewed regularly and demographic estimates of crime victimization are quite stable, withstanding simultaneous statistical controls (third-order) and homogeneous respondents. And with the exception of the item about the chances of a man walking alone at night being victimized (item 3), a similar pattern emerges for the amount-of-viewing measure. But the exceptional item might be the most important. Is the significant correlation between item 3 and the violence (but not viewing)

measure due to the nature of the programs some respondents selected to watch? This illustrates the need for multiple measures of television use. Since all prime-time programs are either 30 minutes or one hour in length, respondents who watch the same amount of prime-time programming could see very different amounts, or types, of violence.

The demographic rape estimate item was significant and remained so after the simultaneous application of controls. This relationship cannot be accounted for by respondents' sex, a logical alternative explanation. Moreover, the value-system rape item approached significance when correlated with the amount-of-viewing measure (zero-order $r = .10$, $p = .12$), and remained in the .09 to .12 significance range with the application of controls.

One explanation of why both demographic and value-system estimates of rape victimization seem to be related to the viewing measures could be that among these respondents, rape is a particularly salient issue with many dimensions. Future researchers may wish to take into consideration the various types of rape our items failed to tap (see footnote 7).

By far the most interesting results are the correlations between the crime-victimization items and the viewing measures divided into subgroups. Amount of prime-time viewed regularly was not correlated with the crime victimization items within subgroups formed by a median split. One explanation could be that the correlations based on combined data reflect linearity between two or more clusters of cases, within each of which the variables are not correlated.

On the other hand, a median split on prime-time violent acts per hour viewed regularly produced some interesting results. In the heavy-violence subgroup, two of the three value-system items (items 1 and 2) were significantly correlated (third-order partials) with violent acts per hour viewed regularly. This is more evidence that value-system cultivation may be related to violent content specifically.

An even more surprising result was found in the light-violence subgroup. The significant partial correlation between the demographic rape estimate item (item 5) and violent acts per hour might be explained by nonlinearity. But, is it possible that the most salient images and information about rape come from sources other than prime-time drama (e.g., newspapers, magazines, films)? And if so, does heavy viewing of prime-time violence in some way mitigate these influences? It is also possible that displacement resulting from heavy prime-time viewing might account for this result, since the two viewing measures are highly correlated ($r = .85, p < .001$).

We believe the most interesting implication for cultivation theory springs from the analysis of the amount of prime-time viewed regularly, broken down by the NCTV categories of violent content. The use of content guidelines for subgrouping viewing measures allows different samples to be compared meaningfully, avoiding the criticisms associated with subgrouping based on median splits, quartiles, or standard deviation units. And regardless of whether one agrees that the NCTV categories are valid, if they remain consistent, they provide a useful basis for comparison over time. Their value to basic researchers will increase over time, as many of the prime-time programs analyzed go into syndication. Ultimately, violence data may be available for a great many programs that make up the broadcast schedules of independent stations, network affiliates's schedules during hours not programmed by the network, and cable and satellite networks. As a result, the overall (not merely prime-time) influence of television violence on constructions of social reality may be examined more thoroughly.

The only significant partial correlations between programs in the low and moderate categories and crime victimization items are negative. Both of these correlations are associated with viewing programs with almost no violence, such as "The Cosby Show," "Webster," or "Newhart" (which are also programs with

prosocial content). And these two items represent both dimensions of the crime-victimization scale (demographic item 1, value-system item 2).

The story for programs in the heavy and excessive categories is very different. All significant partial correlations are positive. Viewing programs in these categories seems to be particularly related to believing that a woman walking alone at night in a city would be the victim of a violent crime. But even more striking is the significant partial correlations between all three value-system items and amount of prime-time viewing in the heavy-violence category, but not in the excessive category. Some interesting explanations are possible. We believe this pattern of correlations suggests that cultivation effects may result from (perhaps habitually) viewing programs that have quite a bit of violence, but not as much as what might be termed the "hard stuff."

To use examples from the program checklist, these correlations were highest for the category of programs that included shows such as "Crazy Like A Fox" (15 violent acts per hour) and "Hill Street Blues" (13 violent acts per hour). Many of these programs are popular, although as a group they comprise the smallest of the violence categories (12 programs of the 94 total), and likewise the lowest average amount of time spent watching (1 hour, 53 minutes).

But the correlations were not significant for programs with excessive violence such as "The A Team" (54 violent acts per hour), "Mike Hammer" (55 violent acts per hour), and "Lady Blue" (50 violent acts per hour). Yet, there were 27 of these excessively violent programs for respondents to indicate watching regularly. And the average time spent watching these programs was 3 hours and 7 minutes (the average for the moderate group is 3 hours and 15 minutes; for the low group, 4 hours and 30 minutes).

It might be that programs in the heavy-violence category do not stand out as "violent" in the perceptions of viewers. Perhaps there is a low level of viewer involvement with the violent content in these programs that accounts for

the apparent cultivation associated with this category. Moreover, maybe persons who watch a lot of the programs in the excessive category seek out the violence because they enjoy it, realizing that "it's only television." This is speculation, though we think these findings suggest important hypotheses for future research.

Conclusion

It seems that overall viewing may be a sufficient measure to detect correlations between estimates of crime-victimization in general and television use. But the significant issue is not whether a person can accurately give the "television answer" about violence in the general population. Instead, it is whether an individual intends, for example, to buy another lock for the door. To account for this internalized cultivation, it seems necessary to measure the actual violence contained in programs. Still more relationships may be uncovered by measures of total regular viewing that include programming at any time of day from any source (network, cable, satellite, video cassette). This will probably require the use of viewing diaries. Although diary methodology is problematic (e.g., typically low response rates--see Steeves & Bostain, 1982), it has been used with success in studies of television and social reality (e.g., Wober & Gunter, 1985).

We recognize that the correlations presented in this report are in the low to moderate range (with the highest correlation accounting for about 10% of the variance), even though they are consistent in this regard with data reported in previous studies. Since television is but one of many contributing influences on constructions of social reality, we believe these relationships have practical significance (cf. McLeod & Reeves, 1980), the limitations of an available-subjects sample and correlational design notwithstanding.

A major task still ahead for content analysts and survey researchers is charting the relationships between estimates of crime victimization and

television viewing at times other than the early evening and Saturday morning. A major task for experimenters is explicating the causal links between media violence and internalized fear of crime victimization. Both approaches are needed to clarify the range and contingencies associated with media-influenced fear of victimization in particular, and social reality effects in general.

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Footnotes

1

The films used in this experiment were Friday the 13th, Maniac, Nightmare, Toolbox Murders, and Texas Chainsaw Massacre. These films contain many explicit scenes of violence directed against both male and female victims, who are almost always killed as the result of the violence.

2

For programs on both NCTV lists, the most recent violence data were used.

3

These items were of interest to the second author, and will not be discussed further.

4

This could be due to the timing of the survey, which was conducted late in the fall semester.

5

A recent newspaper article quotes the A. C. Nielsen Company's viewing averages for persons 18 to 34 years of age. Women in this age group watch an average 32 hours, 21 minutes per week. Their male counterparts watch an average 26 hours, 3 minutes per week. The survey respondents' viewing (combined for males and females) was lower than either Nielsen average. But the 18 to 34 interval (although of interest to advertisers) is probably too wide for any meaningful comparison with these respondents, since it includes persons in college and persons approaching middle age ("Too much TV-watching may spell marriage doom," The Capital Times, Madison, WI, 6/23/86, p. 31).

6

The SPSS program for factor analysis with default options was used (principal factoring with iteration, varimax rotation). Two factors were extracted.

7

The wording of items 5 and 7 did not take into account various types of rape (date rape, rape within marriage, rape at gunpoint). This may account for item 5's about-equal factor loadings.

8

These are not the exact labels used by the NCTV.

Table 1

Individual Item Mean Scores, Items-to-Total Correlations, and Reliability Coefficients of Items Contained in the Crime-Victimization Scale

Demographic Items (Chronbach's alpha = .82)	Items-to-total correlations	$\bar{x}$
1. What percentage of women in the United States were victims of a violent crime last year?	.67	37%
2. What percentage of men in the United States were victims of a violent crime last year?	.52	31%
3. What are the chances that a man walking alone at night in a city would be the victim of a violent crime?	.54	29%
4. What are the chances that a woman walking alone at night in a city would be the victim of a violent crime?	.71	52%
5. What percentage of women do you think will be raped during their lifetime?	.61	34%
Value-system items (Chronbach's alpha = .70)		
1. What do you think are the chances that you will be the victim of a violent crime during the next year?	.61	15%
2. What do you think are the chances that one of your family or a close friend will be the victim of a violent crime during the next year?	.68	21%
3. What are the chances that a woman you know will be the victim of a rape during her lifetime?	.40	34%

Table 2

Varimax-Rotated Factor Loadings for Crime-Victimization Items (see footnote 6)

	Demographic Factor	Value-system Factor
Demographic items		
1. What percentage of women in the United States were victims of a violent crime last year?	.69	.29
2. What percentage of men in the United States were victims of a violent crime last year?	.59	.07
3. What are the chances that a man walking alone at night in a city would be the victim of a violent crime?	.60	.13
4. What are the chances that a woman walking alone at night in a city would be the victim of a violent crime?	.77	.27
5. What percentage of women do you think will be raped during their lifetime?	.57	.47
Value-system items		
1. What do you think are the chances that you will be the victim of a violent crime during the next year?	.24	.82
2. What do you think are the chances that you or your family or a close friend will be the victim of a violent crime during the next year?	.20	.92
3. What are the chances that a woman you know will be the victim of a rape during her lifetime?	.13	.44

Table 3

Zero-Order Correlations Between Viewing Measures and Crime-Victimization Items

	Violent acts per hour	Total hours viewed
<u>Demographic items</u>		
1. What percentage of women in the United States were victims of a violent crime last year?	.208***	.338****
2. What percentage of men in the United States were victims of a violent crime last year?	.137*	.168**
3. What are the chances that a man walking alone at night in a city would be the victim of a violent crime?	.139**	.083
4. What are the chances that a woman walking alone at night in a city would be the victim of a violent crime?	.195***	.196***
5. What percentage of women do you think will be raped during their lifetime?	.181***	.249***
<u>Value-system items</u>		
1. What do you think are the chances that you will be the victim of a violent crime during the next year?	-.010	-.026

- | | | |
|---|------|-------|
| 2. What do you think are the chances that
one_of_your_family or a_close_friend will
be the victim of a violent crime during
the next year? | .023 | -.004 |
| 3. What are the chances that a_woman_you
know will be the victim of a rape during
her lifetime? | .072 | .094 |
-

* $p = .052$, ** $p < .05$, *** $p < .01$, **** $p < .001$ (one-tailed)

Table 4

Significant Partial Correlations Between Number of Prime-Time Violent Acts Per Hour Viewed Regularly
and Crime-Victimization Items

	Zero- Order	Sex	House- town	Religion	Sex + Religion	Sex + House-town	House-town + Religion	Sex + House-town + Religion
<u>Demographic items</u>								
1. What percentage of women in the United States were victims of a violent crime last year?	.21**	.26**	.22**	.26**	.26**	.27**	.23**	.27**
2. What percentage of men in the United States were victims of a violent crime last year?	.14	.17*	.16*	.17*	.17*	.17*	.16*	.17*
3. What are the chances that a man walking alone at night in a city would be the victim of a violent crime?	.14*	.17*	.17*	.18*	.18*	.17*	.17*	.17*
4. What are the chances that a woman walking alone at night in a city would be the victim of a violent crime?	.28**	.26**	.26**	.26**	.26**	.26**	.26**	.25**
5. What percentage of women do you think will be raped during their lifetime?	.18*	.22**	.20**	.22**	.22**	.22**	.20**	.22**

* $p < .05$, ** $p < .01$ (one-tailed)

Table 3

Significant Partial Correlations Between Amount of Prime-Time Television Viewed Regularly and Crime-Victimization Items

	Zero- Order	Sex	Home- town	Religion	Sex + Religion	Sex + Hometown	Hometown + Religion	Sex + Hometown + Religion
<u>Demographic items</u>								
1. What percentage of women in the United States were victims of a violent crime last year?	.32***	.33***	.33***	.34***	.33***	.33***	.34***	.33***
2. What percentage of men in the United States were victims of a violent crime last year?	.16*	.17*	.18*	.18*	.17*	.17*	.18*	.17*
3. What are the chances that a man walking alone at night in a city would be the victim of a violent crime?	.08	.12	.11	.11	.12	.12	.11	.12
4. What are the chances that a woman walking alone at night in a city would be the victim of a violent crime?	.19*	.21**	.22**	.22**	.21**	.21**	.22**	.21**
5. What percentage of women do you think will be raped during their lifetime?	.24**	.25**	.27***	.27***	.25**	.25**	.27***	.25**

* $p < .05$, ** $p < .01$, *** $p < .001$ (one-tailed)

Table 6

Correlations Between Crime-Victimization Items and Number of Prime-Time Violent Acts Per HourViewed Regularly, Divided at the Median

	Light Viewers of Violence		Heavy Viewers of Violence	
	n = 71		n = 71	
	Zero-Order	Third-Order Partial	Zero-Order	Third-Order Partial
<u>Demographic items</u>				
1. What percentage of women in the United States were victims of a violent crime last year?	.11	.12	.06	.13
2. What percentage of men in the United States were victims of a violent crime last year?	-.03	.03	-.05	-.07
3. What are the chances that a man walking alone at night in a city would be the victim of a violent crime?	-.08	.03	.07	.11
4. What are the chances that a woman walking alone at night in a city would be the victim of a violent crime?	-.01	.10	.07	.08
5. What percentage of women do you think will be raped in their lifetime?	.16	.30*	.05	.12
<u>Value-system items</u>				
1. What do you think are the chances that you will be the victim of a violent crime during the next year?	-.02	.13	.04	.24**

2. What do you think are the chances that <u>one of your family or a close friend</u> will be the victim of a violent crime during the next year?	-.10	.06	.05	.27**
3. What are the chances that <u>a woman you</u> <u>know</u> will be the victim of a rape during her lifetime?	.03	.04	.02	.20

* $p = .052$, ** $p < .05$ (one-tailed)

Note. Third-order partials control for sex, hometown background, and religion.

Table 7

Third-Order Partial Correlations Between Crime-Estimation Items and Amount of Prime-Time ViolenceViewed Regularly, Divided by Categories Based on Number of Violent Acts Per Hour

	^a Low (0-2/hr.) n = 38	Moderate (3-9/hr.) n = 17	Heavy (10-19/hr.) n = 12	Excessive (20-55/hr.) n = 27
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Demographic items

1. What percentage of women in the United States were victims of a violent crime last year?	-.19*	.05	.13	.08
2. What percentage of men in the United States were victims of a violent crime last year?	-.04	.00	-.17	.00
3. What are the chances that a man walking alone at night in a city would be the victim of a violent crime?	-.10	-.14	.00	-.17
4. What are the chances that a woman walking alone at night in a city would be the victim of a violent crime?	-.23	-.15	.21*	.25**
5. What percentage of women do you think will be raped in their lifetime?	-.14	.00	.12	.13

Value-written items

1. What do you think are the chances that you will be the victim of a violent crime during the next year?	-.23	.09	.31**	.16
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2. What do you think are the chances that <u>one of your family or a close friend</u> will be the victim of a violent crime during the next year?	-.30**	.15	.22*	.14
3. What are the chances that <u>a woman you know</u> will be the victim of a rape during her lifetime?	.17	-.10	.28**	.09

* $p < .05$, ** $p < .01$ (one-tailed)

Note. Sex, hometown background, and religion controlled.

^a

Categories are suggested by NCTV publications. Numbers in parentheses are violent acts per hour;

^a refers to the number of shows in each category.